[Designation of Document] Abstract

In the distributed memory type, element in the arrangement stored in various memories are inputted/outputted and processing and communication are unified. An information processing system includes a data transmission route for transmitting a value of a memory module to another memory module. A PMM memory has a list of values whose values arranged in ascending order or descending order without duplication. A PMM control device includes: data transmission means for transmitting a value contained in the value list to another memory module; data reception means for receiving a value contained in the value list; and order judgment means for deciding the global value order considering the value contained in the value list of all the other memory modules by referring to the value list of the other memory modules received and storing the decided order at the position corresponding to its memory module value in the global order storage arrangement for storing the global value order.